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PATENT & TRADEMARK OFFICE

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PETERW  
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**CERTIFICATE OF MAILING 37 C.F.R. 1.10**

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I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office To Addressee" service with sufficient postage on the date indicated below and is addressed to: Director, Technology Center 3660, Assistant Commissioner for Patents, Washington, D.C., 20231.

Date: November 26, 2002

Signature: Kathryn Bryan

Kathryn Bryan

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the Application of:  
Kefeng Liu, et al.

Serial No.: 09/746,963

Filed: December 21, 2000

For: Matching Network Hybrid  
Electromagnetic Compatibility  
Absorber

§ Group Art Unit: 3662  
§  
§  
§ Examiner: Ian J. Lobo  
§  
§ Conf. No. 1155  
§  
§  
§ Docket No. 043377.0001

**PETITION UNDER MPEP §1002.02(c)(3)(d)**

Technology Center Directors  
Commissioner for Patents and Trademarks  
Washington, D.C. 20231

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**GROUP 3600**

Dear Sir:

Applicant requests that the Examiner consider the Affidavit under 37 C.F.R. 1.132 that was submitted to Examiner Lobo on October 23, 2002.

**FACTS**

1. In an Office Action mailed on March 7, 2002, Examiner Ian Lobo rejected claims 1-20 of the above noted patent application as containing subject matter which was not described in the specification and requested specific examples of what types of coatings are contemplated. (See attached Exhibit A)

2. In a Response mailed on June 5, 2002, Applicant addressed this issue by pointing out specification language that describes the rejected subject matter of claims 1-20. Among other things, Applicant asserted that the term "coating," as set out in Applicant's claims, is defined in the specification to be an absorber-like material that is used to control the electrical properties in the claimed device and would be understood to be a resistive film. (See attached Exhibit B)

3. In a second and final Office Action mailed on August 23, 2002, Examiner Lobo raised the new issue that, based on the specification, those of ordinary skill in the art would NOT understand that the claimed "coating" refers to a resistive film. (See attached Exhibit C).

4. In a Request for Reconsideration mailed on October 23, 2002, Applicant addressed the new issue raised by Examiner Lobo regarding the understanding of one of ordinary skill in the art by submitting an Affidavit to address the new issue. (See attached Exhibit D.)

5. In an Advisory Action mailed November 7, 2002, it was stated that the Affidavit would not be considered because it was not directed SOLELY to issues which were newly raised by the Examiner in the final rejection. (see attached Exhibit E.)

6. Applicant has since attempted to resolve the new issue through teleconferences with Examiner Lobo and resubmitting the Request for Reconsideration, but, in view of the failure to reach a resolution and to have the Affidavit considered by Examiner Lobo, Applicant submits the instant Petition in an effort to have the Affidavit considered.

The undersigned respectfully requests acknowledgement of the active status of this application and requests that the date of the Official Action be restarted.

Applicant includes herewith a check in the amount of \$130 for the filing of this petition. If the check is inadvertently omitted, or should any additional fees be required for any reason relating to the enclosed materials, or should an overpayment be included herein, the Assistant Commissioner is authorized to deduct or credit said fees from or to Akin, Gump, Strauss, Hauer & Feld, L.L.P. Deposit Account No. 01-0660.

Respectfully submitted,

Date: November 26, 2001



Russell C. Scott, Reg. No. 43,103

**CUSTOMER NO. 020790**

**ATTORNEY OR AGENT OF RECORD**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,963	12/21/2000	Kefeng Liu	043377.0011	1155

7590 03/07/2002

Shayne X. Short, Ph. D.  
Akin, Gump, Strauss, Hauer & Feld, L.L.P.  
1900 Frost Bank Building  
816 Congress Avenue, Suite 1900  
Austin, TX 78701

EXAMINER

LOBO, IAN J

ART UNIT

PAPER NUMBER

3662

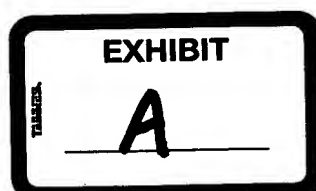
DATE MAILED: 03/07/2002

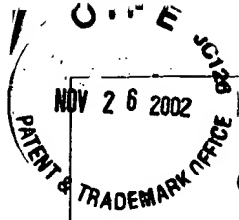
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MAR 13 2002

Docket by \_\_\_\_\_  
Action \_\_\_\_\_  
Due date \_\_\_\_\_





## Office Action Summary

Application No.

09/746,963

Applicant(s)

LIU ET AL.

Examiner

Ian J. Lobo

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
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- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

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### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other:



**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

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1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not provide an enabling disclosure of what the "coating" is. Specific examples of what types of coating are contemplated are lacking from the disclosure and thus the specification is non-enabling.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4, 5, 6, 7, 9, 10, 13, 14, 16, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by the IEEE article to Ellam.

The article to Ellam discloses hybrid EMC absorber structures that each includes ferrite tiles and dielectric materials. The instant claims to a hybrid EMC absorber with a

Art Unit: 3662

layer having a surface and a coating that covers a portion of the layer is substantially met by the disclosure of Ellam in that the ferrite tiles read upon the layer surface claimed and the dielectric materials read upon the coating claimed.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian J. Lobo whose telephone number is (703) 306-4161.

The examiner can normally be reached on Mon - Fri, 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Tarcza can be reached on (703) 306-4171. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-4195 for regular communications and (703) 306-4195 for After Final communications.

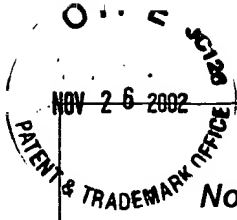
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-4177.

Ian J. Lobo  
Primary Examiner  
Art Unit 3662

ijl

March 5, 2002

NOV 26 2002

**Notice of References Cited**

Application/Control No.

09/746,963

Applicant(s)/Patent Under  
Reexamination  
LIU ET AL.

Examiner

Ian J. Lobo

Art Unit

3662

Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5323160	06-1994	Kim et al	342/1
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

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**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)				
	U	Ellam, T., "An Update on the Design and Synthesis of Compact Absorber for EMC Chamber Applications," Electromagnetic Compatibility, 1994. Symposium Record. Compatibility in the Loop, IEEE International Symposium on, pp. 408-412, 8/1994				
	V	Mayer et al. "High Frequency Broadband Absorption Structures" Electromagnetic Compatibility, 1998. Symposium Record. Compatibility in the Loop, IEEE International Symposium on, pp. 894-899, 8/1998				
	W	Pues et al. "Design of Modern EMC Chambers for Radiated EMC Testing up to 18 GHz" , " Electromagnetic Compatibility, 1997. Symposium Record. Compatibility in the Loop, IEEE International Symposium on, pp. 72-77, 8/1997				
	X	Michielssen et al. "Design of Lightweight, Broad-Band Microwave Absorbers Using Genetic Algorithms" IEEE Transactions on Microwave Theory and Techniques, Vol. 41, No. 67 June/July 1993				

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)

Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

EL863496129US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

KEFENG LIU, ET AL.

Filed: December 21, 2000

Serial No.: 09/746963

For: MATCHING NETWORK  
HYBRID ELECTRO-  
MAGNETIC COMPATIBILITY  
ABSORBER

Confirmation No.: 1155

Art Unit: 3662

Examiner: Ian J. Lobo

Docket No.: 043377.0011

RESPONSE AND AMENDMENT

BOX NON-FEE AMENDMENT

Commissioner for Patents  
Washington, D.C. 20231

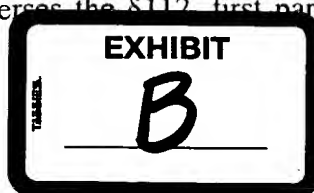
Dear Sir:

In response to the Office Action dated March 7, 2002, Applicant requests consideration of the following remarks. For convenience of the Examiner, a copy of the pending claims is included in Attachment A herein.

REMARKS

Claims 1-20 are pending. In the Office Action, claims 1-20 were rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention; and claims 1, 4, 5, 6, 7, 9, 10, 13, 14, 16, 18, 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by the IEEE article to Ellam (hereinafter referred to as "Ellam").

Applicant respectfully traverses the §112, first paragraph, rejection of claims 1-20. As



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understood by those of ordinary skill in the art, the term "coating," as set out in Applicant's claims, refers to a resistive film. The resistive film or coating is a type of electrically conductive material such as carbon, graphite, carbon fiber, mylar, or other metalized film. As stated in the specification, the "coating [is] an absorber-like material, in various shapes, over any type of substrate [that] is used to control the electrical properties of the matching network hybrid EMC absorber" (Application, page 10, lines 13-14). For at least these reasons, Applicant requests the Examiner to withdraw the 112 rejection of Applicant's claims.

Applicant respectfully traverses the §102(b) rejection of claims 1, 4, 5, 6, 7, 9, 10, 13, 14, 16, 18, 20 as being anticipated by Ellam. Ellam fails to teach, disclose, or otherwise suggest a matching network hybrid electro-magnetic compatibility absorber with a coating that covers a predetermined portion of the absorber's surface as recited in at least independent claim 9. For at least this reason, Applicant urges the Examiner to withdraw the §102(b) rejection of the above noted claims.

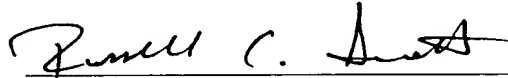
**CONCLUSION**

In view of the foregoing remarks and for various other reasons, Applicant submits that claims 1-20 are allowable, and a Notice of Allowance is courteously solicited. If any impediment to the allowance of these claims remains after entry of this Preliminary Amendment, and such impediment could be alleviated during a telephone interview, the Examiner is invited to telephone the undersigned so that such issues may be resolved as expeditiously as possible.

Respectfully submitted,

Date: \_\_\_\_\_

6/5/02



Russell C. Scott, Reg. No. 43,103  
**CUSTOMER NUMBER 020790**

AKIN, GUMP, STRAUSS, HAUER & FELD, L.L.P.  
300 West 6th Street  
Suite 2100  
Austin, Texas 78701  
512-499-620

**Attachment A (Pending Claims)**

1           1.       A matching network hybrid electro-magnetic compatibility absorber to provide  
2 improved radio frequency absorbing performance in a frequency range of approximately 20 MHz  
3 to approximately 500 MHz, comprising:

4           a big element;

5           a small element that is located beneath the big element;

6           the big element comprises a big element surface;

7           the small element comprises a small element surface;

8           a big element coating that covers a predetermined portion of the big element surface; and

9           a small element coating that covers a predetermined portion of the small element surface.

1           2.       The matching network hybrid electro-magnetic compatibility absorber of claim 1,  
2 wherein the matching network hybrid electro-magnetic compatibility absorber comprises a  
3 substantially pyramid-like shape;

4           the predetermined portion of the big element surface comprises less than an entirety of  
5 the big element surface; and

6           the predetermined portion of the small element surface comprises less than an entirety of  
7 the small element surface.

1           3.       The matching network hybrid electro-magnetic compatibility absorber of claim 1,  
2 wherein at least one of the big element coating and the small element coating comprises a  
3 substantially tear drop shape.

1           4.       The matching network hybrid electro-magnetic compatibility absorber of claim 1,  
2 wherein at least one of the big element coating and the small element coating comprises a  
3 predetermined thickness.

1           5.       The matching network hybrid electro-magnetic compatibility absorber of claim 1,  
2 wherein the big element and the small element are separated by a predetermined distance.

1           6.       The matching network hybrid electro-magnetic compatibility absorber of claim 1,  
2 wherein the big element comprises at least two surfaces; and  
3 a distance between the at least two surfaces comprises a predetermined thickness.

1           7.       The matching network hybrid electro-magnetic compatibility absorber of claim 1,  
2 wherein the big element coating comprises a first material; and  
3 the small element coating comprises a second material.

1           8.       The matching network hybrid electro-magnetic compatibility absorber of claim 1,  
2 further comprising at least one additional big element coating that covers at least one additional  
3 predetermined portion of the big element surface, the at least one additional predetermined  
4 portion of the big element surface being less than an entirety of the big element surface.

1           9.       A matching network hybrid electro-magnetic compatibility absorber to provide  
2 improved radio frequency absorbing performance in a frequency range of approximately 20 MHz

3 to approximately 500 MHz, comprising:  
4 a layer comprising a surface; and  
5 a coating that covers a predetermined portion of the surface.

1 10. The matching network hybrid electro-magnetic compatibility absorber of claim 9,  
2 wherein the coating comprises a predetermined shape.

1 11. The matching network hybrid electro-magnetic compatibility absorber of claim 9,  
2 wherein the layer comprises at least one additional surface; and  
3 at least one additional coating covers a predetermined portion of the at least one  
4 additional surface, the predetermined portion of the at least one additional surface comprises less  
5 than an entirety of the least one additional surface.

1 12. The matching network hybrid electro-magnetic compatibility absorber of claim 9,  
2 further comprising at least one additional layer, the at least one additional layer comprises at  
3 least one additional surface; and  
4 at least one additional coating covers a predetermined portion of the at least one  
5 additional surface, the predetermined portion of the at least one additional surface comprises less  
6 than an entirety of the least one additional surface.

1 13. The matching network hybrid electro-magnetic compatibility absorber of claim 9,  
2 further comprising at least two elements; and  
3 at least one of the two elements comprises the layer.

1           14.     The matching network hybrid electro-magnetic compatibility absorber of claim 9,  
2     wherein the layer comprises at least one additional surface; and  
3           a distance between the surface and the at least one additional surface comprises a  
4     predetermined thickness.

1           15.     The matching network hybrid electro-magnetic compatibility absorber of claim 9,  
2     wherein the coating comprises a predetermined thickness; and  
3           the predetermined portion of the surface comprises less than an entirety of the surface.

1           16.     A matching network hybrid electro-magnetic compatibility absorber, comprising:  
2     an absorber comprising a surface having a coating;  
3     the coating comprising at least one of a coating type, a coating shape, a coating thickness,  
4     and a coating placement; and  
5     at least one of the coating type, the coating shape, the coating thickness, and the coating  
6     placement is varied as a design parameter to permit absorption of radio frequency energy in a  
7     frequency range extending from approximately 500 MHz to approximately 40 GHz.

1           17.     The matching network hybrid electro-magnetic compatibility absorber of claim  
2     16, wherein the coating shape comprises a substantially tear drop shape.

1           18.     The matching network hybrid electro-magnetic compatibility absorber of claim  
2     16, wherein the coating covers an entirety of the surface.

1           19.    The matching network hybrid electro-magnetic compatibility absorber of claim  
2   16, wherein the coating covers less than an entirety of the surface.

1           20.    The matching network hybrid electro-magnetic compatibility absorber of claim  
2   16, wherein the surface comprises at least one additional coating that comprises at least one of at  
3   least one additional coating type, at least one additional coating shape, at least one additional  
4   coating thickness, and at least one additional coating placement.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,963	12/21/2000	Kefeng Liu	043377.0011	1155

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Akin, Gump, Strauss, Hauer & Feld, L.L.P.  
1900 Frost Bank Building  
816 Congress Avenue, Suite 1900  
Austin, TX 78701

AUG 30 2002

Docket by  
Action  
Due date

EXAMINER

LOBO, IAN J

ART UNIT

PAPER NUMBER

3662

DATE MAILED: 08/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.





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# Office Action Summary

Application No.

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Examiner

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- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
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## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
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If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

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a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
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a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other:

## INFORMATION DISCLOSURE CITATION

(Use Several Sheets if Necessary)

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## FOREIGN PATENT DOCUMENTS

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

ISL

ISL

TJL

TL

**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.



### DETAILED ACTION

#### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not provide an enabling disclosure of what the "coating" is. Specific examples of what types of coating are contemplated are lacking from the disclosure and thus the specification is non-enabling.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4, 5, 6, 7, 9, 10, 13, 14, 16, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by the IEEE article to Ellam.

The article to Ellam discloses hybrid EMC absorber structures that each includes ferrite tiles and dielectric materials. The instant claims to a hybrid EMC absorber with a

layer having a surface and a coating that covers a portion of the layer is substantially met by the disclosure of Ellam in that the ferrite tiles read upon the layer surface claimed and the dielectric materials read upon the coating claimed.

### ***Response to Arguments***

5. Applicant's arguments filed June 5, 2002 have been fully considered but they are not persuasive.

With respect to the 35 USC 112 rejection, applicant's argue that one of ordinary skill in the art would know that the "coating" refers to a "resistive coating". This conclusion is incorrect. Nowhere in the specification does it teach one having ordinary skill in the art how to make and use a coating, specific to the electromagnetic absorber claimed, without undue experimentation. Aside from applicants arguments, there is no mention of a "resistive" coating anywhere in the specification. The arguments are not commensurate in scope with the instant claims or the specification.

Applicant's further argue that Ellam does not teach, disclose or suggest a matching network hybrid electro-magnetic compatibility absorber with a coating that covers a predetermined portion of the absorber's surface. This argument is not convincing since Ellam discloses (see abstract) a hybrid EMC absorber using ferrite tiles and multilayered, carbon loaded, dielectric materials. In as much as the dielectric layer reads upon the "coating" claimed, it is apparent that the claimed invention is anticipated by the Ellam reference, since the pyramidal configuration of Fig. 3 further reads upon the claimed "coating that covers a predetermined portion" of the absorbers surface.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian J. Lobo whose telephone number is (703) 306-4161. The examiner can normally be reached on Mon - Fri, 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (703) 306-4171. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Art Unit: 3662

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Ian J. Lobo  
Primary Examiner  
Art Unit 3662

ijl  
August 22, 2002



CERTIFICATE OF MAILING 37 C.F.R. 1.10

"Express Mail" Mailing Label Number: EL863496906US

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office To Addressee" service with sufficient postage on the date indicated below and is addressed to: Assistant Commissioner for Patents, Box AF, Washington, D.C., 20231.

Date: October 23, 2002

Signature: Kathryn Bryan

Kathryn Bryan

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Applicant:	Kefeng Liu, et al.	§	Confirmation No.:	1155
		§		
Filed:	December 21, 2000	§	Art Unit:	3662
		§		
Serial No.:	09/746,963	§	Examiner:	Ian J. Lobo
		§		
For:	MATCHING NETWORK	§	Docket No.:	043377.0011
	HYBRID ELECTRO-	§		
	MAGNETIC COMPATIBILITY	§		
	ABSORBER	§		

**REQUEST FOR RECONSIDERATION**

BOX AF  
Commissioner for Patents  
Washington, D.C. 20231

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Dear Sir:

In response to the Final Office Action dated August 23, 2002, Applicant requests consideration of the following remarks. For convenience of the Examiner, a copy of the pending claims is included in Attachment A herein.

**REMARKS**

Claims 1-20 are pending. In the Office Action, claims 1-20 were rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention; and claims 1, 4, 5, 6, 7, 9, 10, 13, 14, 16, 18, 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by the IEEE article to Ellam (hereinafter referred to as "Ellam").



EL863496906US

As discussed in an interview on or about October 4, 2002 between Examiner Lobo and Applicant's representative Russell Scott, Applicant respectfully traverses the §112, first paragraph, rejection of claims 1-20. In addition to reasons that were given in the interview and reasons given in previous Office Action responses, an Affidavit under 37 C.F.R. 1.132 is included herewith to further support the assertion that as understood by those of ordinary skill in the art, the term "coating," as set out in Applicant's claims, refers to a resistive film. The resistive film or coating is a type of electrically conductive material such as carbon, graphite, carbon fiber, mylar, or other metalized film. As stated in the specification, the "coating [is] an absorber-like material, in various shapes, over any type of substrate [that] is used to control the electrical properties of the matching network hybrid EMC absorber" (Application, page 10, lines 13-14). For at least these reasons, Applicant requests the Examiner to withdraw the 112 rejection of Applicant's claims.

Applicant respectfully traverses the §102(b) rejection of claims 1, 4, 5, 6, 7, 9, 10, 13, 14, 16, 18, 20 as being anticipated by Ellam. Ellam fails to teach, disclose, or otherwise suggest a matching network hybrid electro-magnetic compatibility absorber with a coating that covers a predetermined portion of the absorber's surface as recited in at least independent claim 9. For at least this reason, Applicant urges the Examiner to withdraw the §102(b) rejection of the above noted claims.



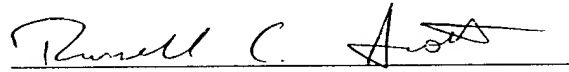
## CONCLUSION

In view of the foregoing remarks and for various other reasons, Applicant submits that claims 1-20 are allowable and a Notice of Allowance is courteously solicited. If any impediment to the allowance of these claims remains after entry of this Request for Reconsideration and such impediment could be alleviated during a telephone interview, the Examiner is invited to telephone the undersigned so that such issues may be resolved as expeditiously as possible.

It is believed that no fees are due at this time. However, should any fees be deemed owing, please deduct these fees or credit any overpayment to the Akin, Gump, Strauss, Hauer & Feld Deposit Account No. 01-0660.

Respectfully submitted,

Date: October 23, 2002



Russell C. Scott, Reg. No. 43,103

**CUSTOMER NUMBER 020790**

AKIN GUMP STRAUSS HAUER & FELD LLP  
300 West 6th Street  
Suite 2100  
Austin, Texas 78701  
Telephone: 512/499-6200  
Fax: 512/499-6290

**ATTACHMENT A  
(Pending Claims)**

1. A matching network hybrid electro-magnetic compatibility absorber to  
5 provide improved radio frequency absorbing performance in a frequency range of  
approximately 20 MHz to approximately 500 MHz, comprising:

a big element;

a small element that is located beneath the big element;

the big element comprises a big element surface;

10 the small element comprises a small element surface;

a big element coating that covers a predetermined portion of the big element  
surface; and

a small element coating that covers a predetermined portion of the small element  
surface.

15 2. The matching network hybrid electro-magnetic compatibility absorber of  
claim 1, wherein the matching network hybrid electro-magnetic compatibility absorber  
comprises a substantially pyramid-like shape;

the predetermined portion of the big element surface comprises less than an  
entirety of the big element surface; and

20 the predetermined portion of the small element surface comprises less than an  
entirety of the small element surface.

3. The matching network hybrid electro-magnetic compatibility absorber of  
claim 1, wherein at least one of the big element coating and the small element coating  
comprises a substantially tear drop shape.

25 4. The matching network hybrid electro-magnetic compatibility absorber of  
claim 1, wherein at least one of the big element coating and the small element coating  
comprises a predetermined thickness.

5. The matching network hybrid electro-magnetic compatibility absorber of claim 1, wherein the big element and the small element are separated by a predetermined distance.

6. The matching network hybrid electro-magnetic compatibility absorber of claim 1, wherein the big element comprises at least two surfaces; and a distance between the at least two surfaces comprises a predetermined thickness.

7. The matching network hybrid electro-magnetic compatibility absorber of claim 1, wherein the big element coating comprises a first material; and the small element coating comprises a second material.

8. The matching network hybrid electro-magnetic compatibility absorber of claim 1, further comprising at least one additional big element coating that covers at least one additional predetermined portion of the big element surface, the at least one additional predetermined portion of the big element surface being less than an entirety of the big element surface.

9. A matching network hybrid electro-magnetic compatibility absorber to provide improved radio frequency absorbing performance in a frequency range of approximately 20 MHz to approximately 500 MHz, comprising:

a layer comprising a surface; and

a coating that covers a predetermined portion of the surface.

10. The matching network hybrid electro-magnetic compatibility absorber of claim 9, wherein the coating comprises a predetermined shape.

11. The matching network hybrid electro-magnetic compatibility absorber of claim 9, wherein the layer comprises at least one additional surface; and

at least one additional coating covers a predetermined portion of the at least one additional surface, the predetermined portion of the at least one additional surface

comprises less than an entirety of the least one additional surface.

12. The matching network hybrid electro-magnetic compatibility absorber of claim 9, further comprising at least one additional layer, the at least one additional layer comprises at least one additional surface; and

5 at least one additional coating covers a predetermined portion of the at least one additional surface, the predetermined portion of the at least one additional surface comprises less than an entirety of the least one additional surface.

13. The matching network hybrid electro-magnetic compatibility absorber of claim 9, further comprising at least two elements; and

10 at least one of the two elements comprises the layer.

14. The matching network hybrid electro-magnetic compatibility absorber of claim 9, wherein the layer comprises at least one additional surface; and

a distance between the surface and the at least one additional surface comprises a predetermined thickness.

15 15. The matching network hybrid electro-magnetic compatibility absorber of claim 9, wherein the coating comprises a predetermined thickness; and

the predetermined portion of the surface comprises less than an entirety of the surface.

16. A matching network hybrid electro-magnetic compatibility absorber,  
20 comprising:

an absorber comprising a surface having a coating;

the coating comprising at least one of a coating type, a coating shape, a coating thickness, and a coating placement; and

at least one of the coating type, the coating shape, the coating thickness, and the  
25 coating placement is varied as a design parameter to permit absorption of radio frequency

energy in a frequency range extending from approximately 500 MHz to approximately 40 GHz.

17. The matching network hybrid electro-magnetic compatibility absorber of claim 16, wherein the coating shape comprises a substantially tear drop shape.

5 18. The matching network hybrid electro-magnetic compatibility absorber of claim 16, wherein the coating covers an entirety of the surface.

19. The matching network hybrid electro-magnetic compatibility absorber of claim 16, wherein the coating covers less than an entirety of the surface.

20. The matching network hybrid electro-magnetic compatibility absorber of  
10 claim 16, wherein the surface comprises at least one additional coating that comprises at least one of at least one additional coating type, at least one additional coating shape, at least one additional coating thickness, and at least one additional coating placement.



**CERTIFICATE OF MAILING 37 C.F.R. 1.10**

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Date: 10/23/02

Signature: Kathryn Bryan  
Kathryn Bryan

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Applicant:

KEFENG LIU, ET AL.

Filed: December 21, 2000

Serial No.: 09/746963

For: Matching Network Hybrid Electro-  
Magnetic Compatibility Absorber

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Confirmation No.: 1155

Art Unit: 3662

Examiner: Ian J. Lobo

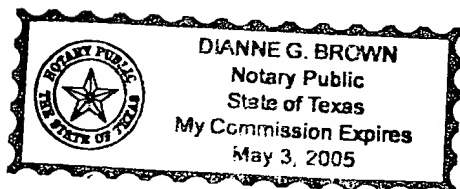
Docket No.: 043377.0011

**AFFIDAVIT UNDER 37 C.F.R. 1.132**

I, James Psencik, declare that I am of ordinary skill in the art of hybrid electro-magnetic compatibility (EMC) absorbers. Upon review of the above noted patent application and without undue experimentation, I have come to understand potential materials that could be used to create the coating of absorber-like material described in the application at page 10, lines 13-16. I believe that, with similar review of the above-noted application, another person of ordinary skill in the art should understand that the coating used to control electrical properties of the matching network hybrid EMC absorber is an electrically conductive material or resistive/metalized film such as carbon, latex, graphite, carbon fiber, mylar, etc.

Date: October 21, 2002

Subscribed and sworn to before me, on this 21<sup>st</sup> day of October, 2002.



[Signature]

Dianne G. Brown  
Notary Public - State of Texas

DIANNE G. BROWN  
[Type/Print Name of Notary]

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,963	12/21/2000	Kefeng Liu	043377.0011	1155

7590 11/07/2002

Shavne X Short Ph D

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EXAMINER

LOBO, IAN J

ART UNIT	PAPER NUMBER
3662	

DATE MAILED: 11/07/2002



Please find below and/or attached an Office communication concerning this application or proceeding.

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# Advisory Action

Application No.

09/746,963

Applicant(s)

LIU ET AL.

Examiner

Ian J. Lobo

Art Unit

3662

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 23 October 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

## PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_
6. ☒ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1-20

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
10. ☐ Other: \_\_\_\_\_

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Ian J. Lobo  
Primary Examiner  
Art Unit: 3662